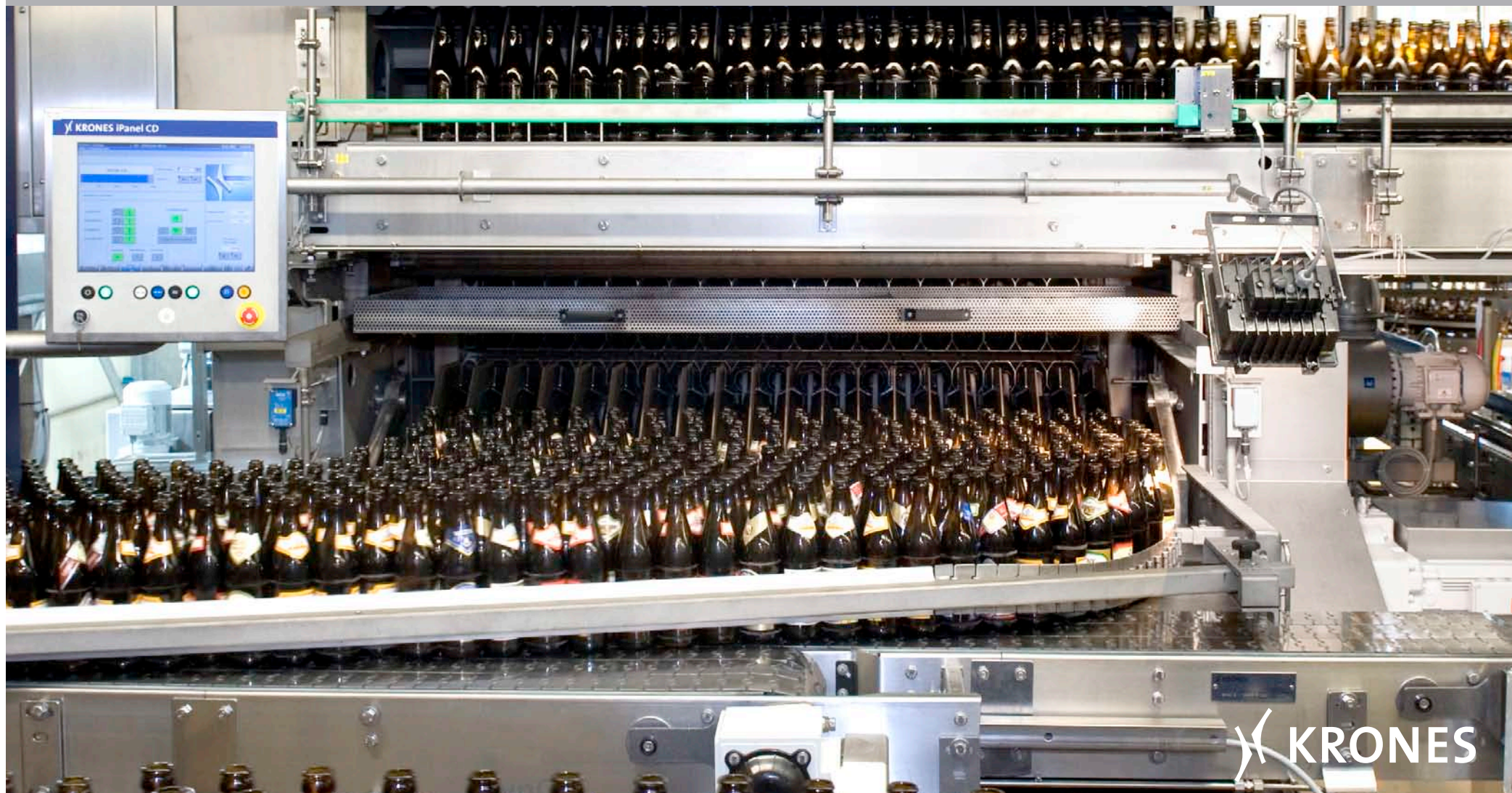


KRONES Lavatec E3/E4

The compact single-end bottle washer



 **KRONES**

High performance, low consumption - or: small and great machine

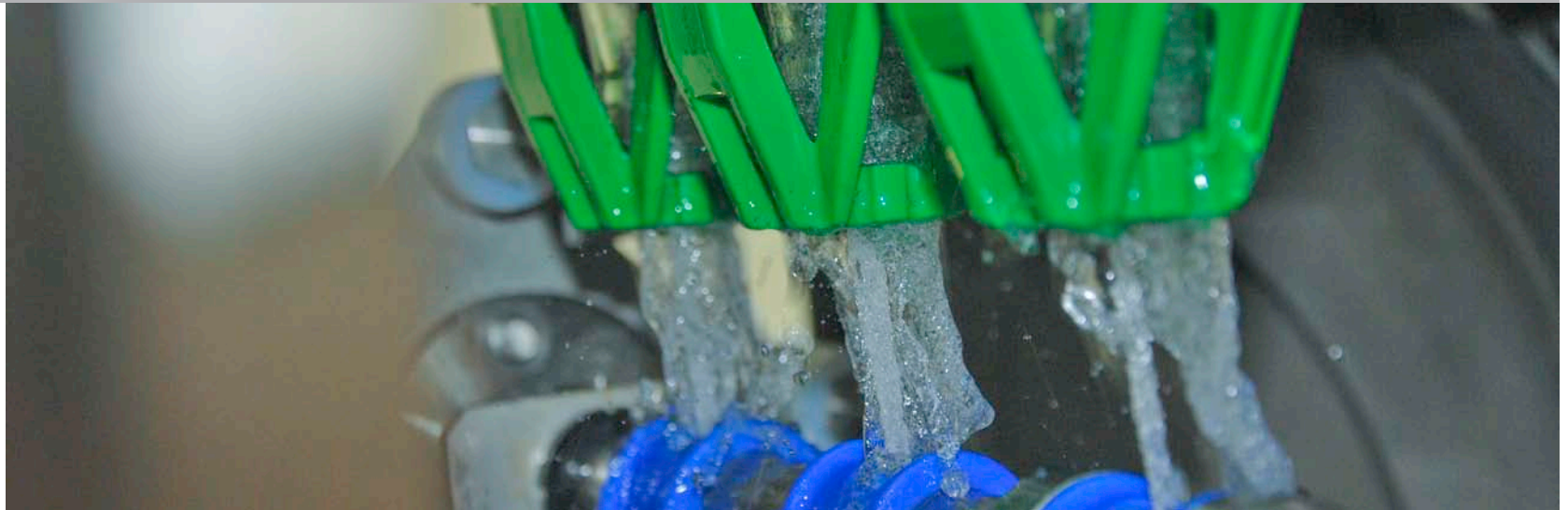
KRONES Lavatec E3/E4

Canniness is a virtue. Therefore, the bottle washers of the single-end series provide high performance on smallest space. Their heating and caustic zones can be set up individually of single modules and they can be integrated in machine housings with different heights. Thanks to the horizontal loop guide, the bottles remain in the caustic until they are perfectly clean. This machine saves not only space, but also costs. Therefore, it is equipped with efficient systems for recovering energy and water. This should make the decision to go for the „small“ Lavatec as clear as to go for the bottles treated by it.



Method of operation

Infeed and discharge of the bottles is performed by the single-end principle at the same side and with maximum biological safety. The pre-cleaning heats the bottles and removes coarse contamination. Subsequently the bottles run through the caustic bath in horizontal loops, in order to completely wash away dirt or labels. Before the bottles leave the machine, they are cooled in the post-treatment zones with a small quantity of fresh water and freed of any remaining dirt or caustic residues.



Output range

	Output (bottles per hour)	Residual draining	Pre-treatment stages	Pre-caustic	Main caustic/ post-caustic	Caustic jetting
E3	20,000 – 135,000	optional	1, 2, 3	optional	X	X
E4	25,000 – 90,000	optional	1, 2, 3	optional	X	X
Rinser	3,000 – 120,000	–	1	–	–	–

Application

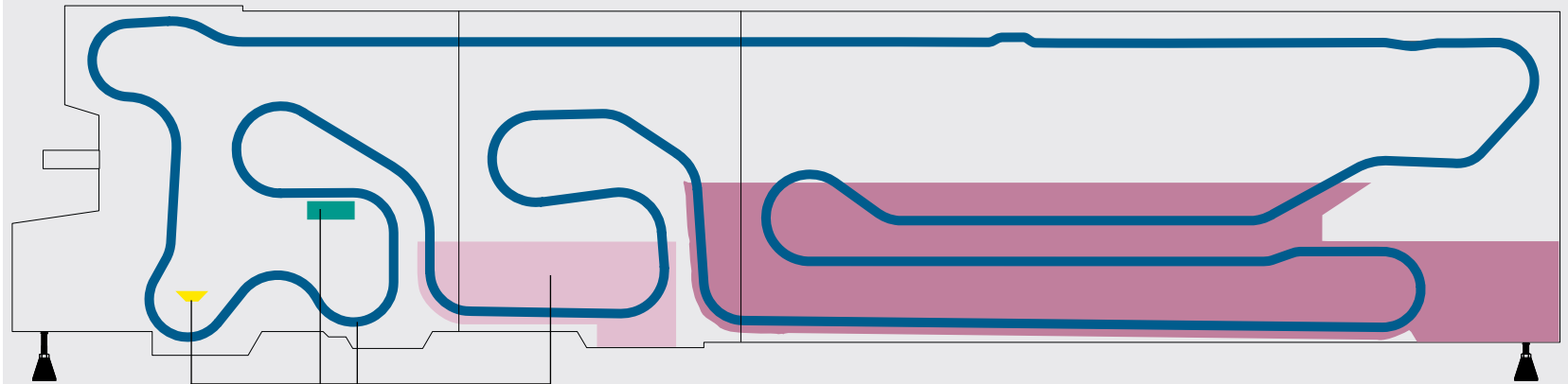
Food-grade cleaning of returnable containers made of glass and plastic.

Lavatec E3 – the well-proven power pack

KRONES Lavatec E3/E4

Design features

- Modular design
- Stable, robust construction
- Caustic submerge bath with double label removal
- Bottle carriers of steel with plastic insert
- Automatic bath filling system
- Conductimetry in the main caustic bath
- Weekly operation
- Synchronous drives
- Touch-screen operation



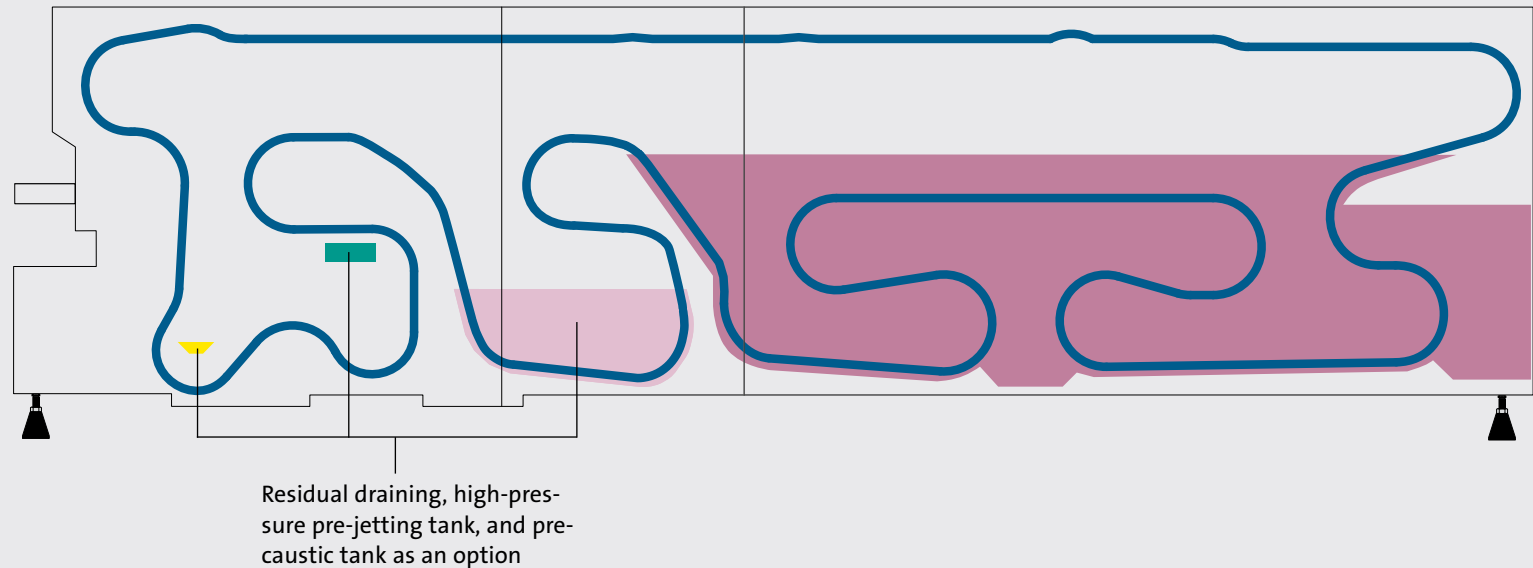
Residual draining, high-pressure pre-jetting tank, pre-soak tank 2, and pre-caustic tank as an option

Lavatec E4 – the specialist for tricky cases

KRONES Lavatec E3/E4

Design features

- Modular design
- Caustic submerge bath with four-fold label removal system to prevent the labels from defibration and from colour coming off.
- Bottle carriers of steel with plastic insert
- Optimum access to all machine areas
- Automatic bath filling system
- Conductimetry in the main caustic bath
- Weekly operation
- Synchronous drives
- Touch-screen operation

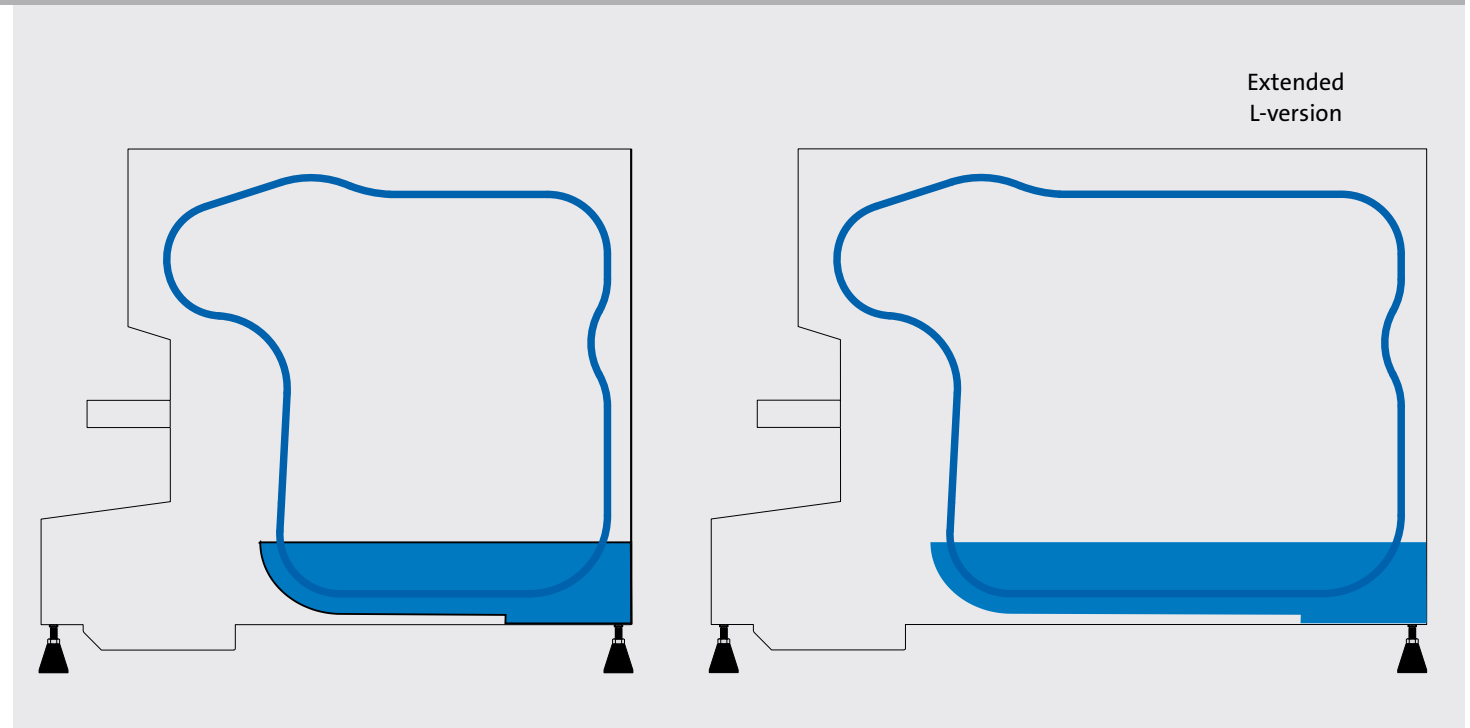


Lavatec R – the rinser for high hygienic requirements

KRONES Lavatec E3/E4

Makes new containers sparkle

Lavatec R is always used when new containers are to be cleaned before filling. It cleans, for example, spirits bottles or special-shaped containers inside and outside, and does therefore provide a basis for perfect cleaning. If specifically required, its chief attraction is discharging hot bottles. This way, juice containers and other hotfill containers can be guided directly to the filler without „heating“ intermediate stops.

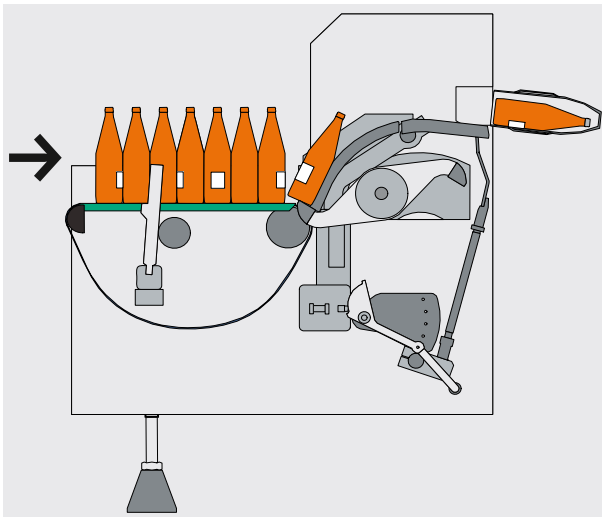


Application

Exterior and interior cleaning of glass containers with or without caustic

Design features

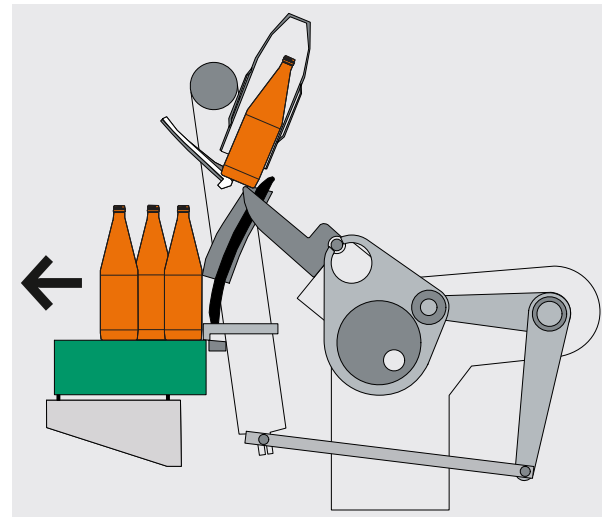
- Housing and pumps in stainless steel
- Bottle carriers of stainless steel with plastic pockets



Bottle infeed

Infeed

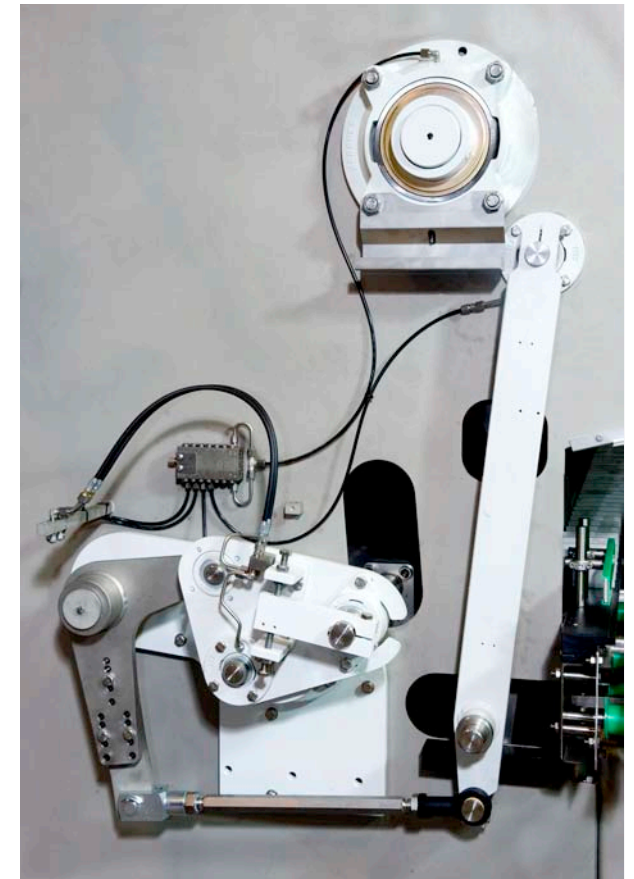
During the infeed, fingers take over the bottles from the conveyor and transport them safely and exactly to the bottle carriers.



Bottle discharge

Discharge

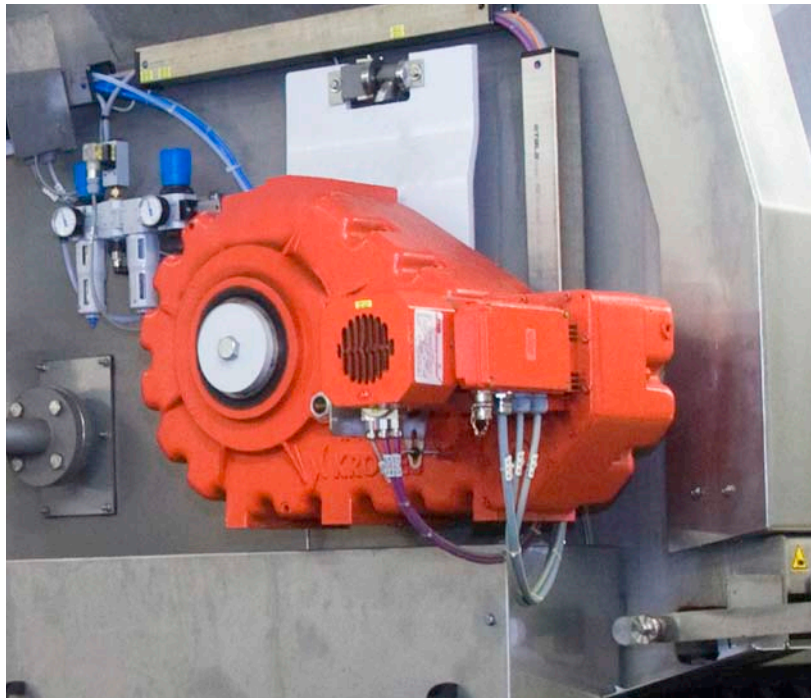
Special discharge fingers transport containers of all shapes and sizes without allowing them to fall and with little noise onto the conveyor.



The mechanical components at the discharge

Drive technology

- Together with a central frequency inverter, the high-performance synchronous drives allow precise control of the main chain and gentle bottle conveyance.
- Bush conveyor chains with plastic bushes immensely reduce the frictional forces.
- All drive sprockets and end-turning devices are separated - this is a significant advantage for later maintenance jobs.



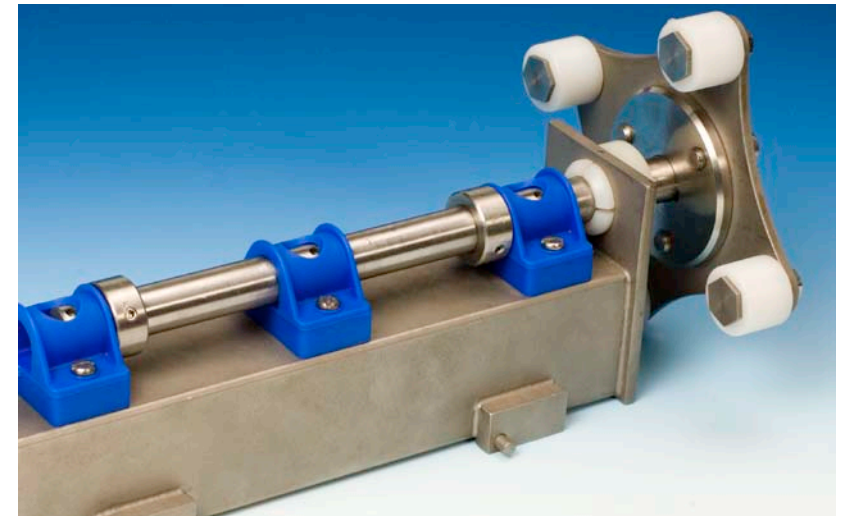
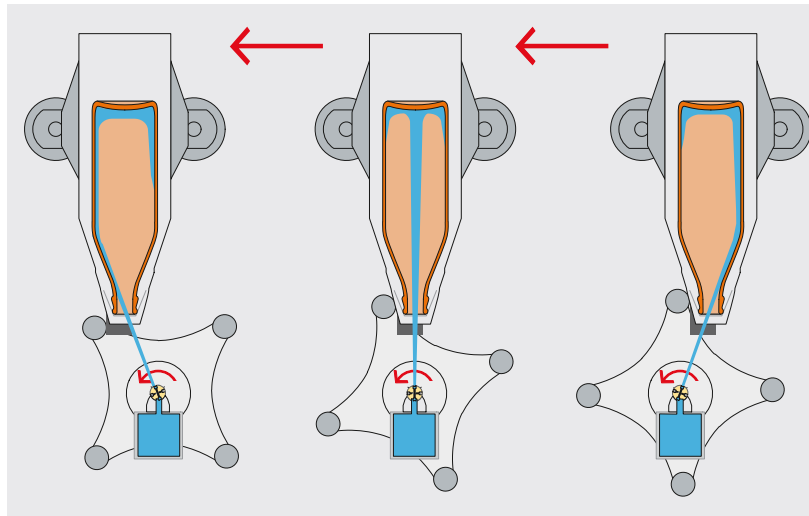
Synchronous drive



Split sprockets facilitate maintenance.

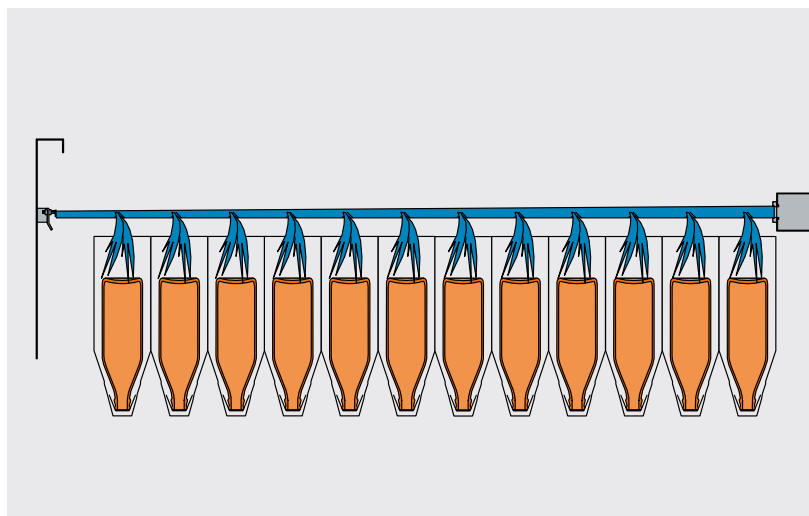
Bottle interior cleaning

Rotating spraying nozzles clean the insides of the bottles from different angles of incidence.



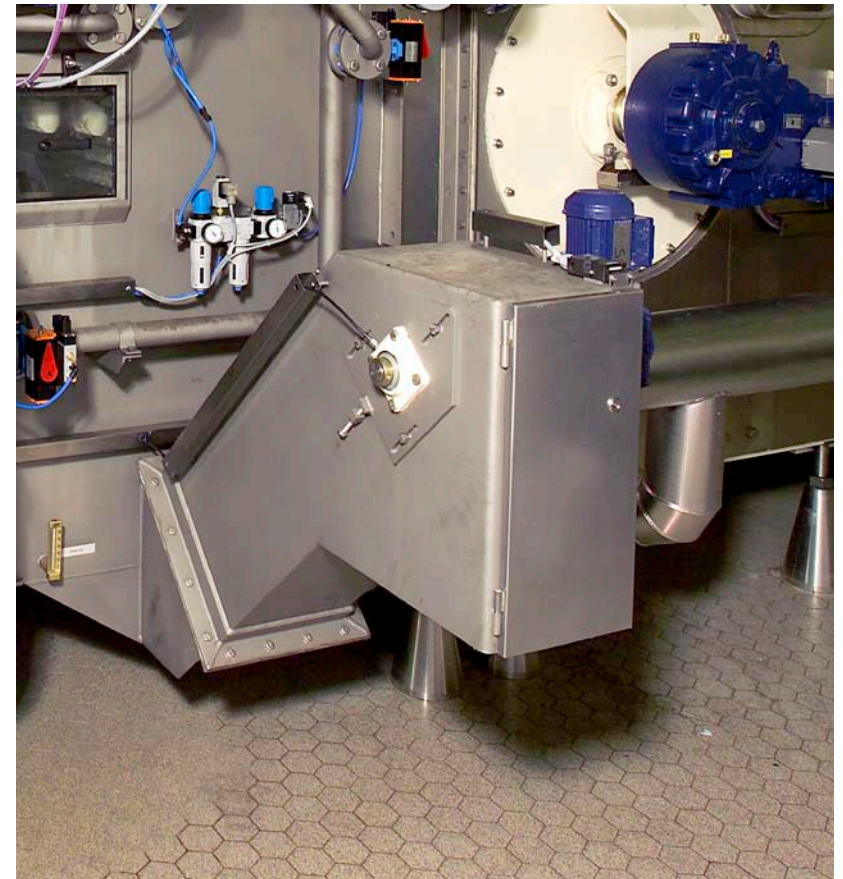
Bottle exterior cleaning

External cleaning is effected from above by patented jetting units.



Additional equipment

- Glass fragment removal in the pre-soak tank
- Automatic dirt removal unit
- Connection to water-recycling systems
- System suitable for water recycling
- Connection to alternative heating systems
- High-pressure pre-jetting
- Modules for heat recovery
- Stainless steel parts at the infeed and discharge of the bottles
- PSL package for washing bottles with self-adhesive plastic labels
- Label press
- Module for rinsing and disinfecting



Automatic dirt removal unit

Glass removal unit

Connection to alternative heating systems possible, e.g. solar energy

Your benefits

KRONES Lavatec E3/E4

- **Multiplicity of variants**

Different modules and housing heights open up a great freedom of combinations. This way, the bottle washer can be adjusted exactly to any space and task.

- **High performance**

The Lavatec E operates with an impressive speed and has a high bottle throughput.

- **Low space requirement**

Despite its high performance, the compact machine only requires little space. This is thanks to its design according to the single-end principle, as well as the effective loop guidance.

- **Low operating costs**

The bottle washer is very saving with energy and water thus keeping the operating costs at a continuously low level.

